

Annual Drinking Water Quality Report

CMWD's "Ojai Water System"
ID# CA5610014, 2017 Data

High Water Quality Standards

Casitas Municipal Water District's (CMWD) Ojai Water System, strives to meet, or exceed, all USEPA and state standards for safe water. To ensure that you receive the highest quality drinking water, we test beyond what state and federal regulations mandate. This report shows the results of monitoring for the period of January 1 through December 31, 2017, which is the most recent testing period required.

Este informe contiene informacion muy importante sobre su agua beber. Traduzcalo o hable con alguien que lo entienda bien. Para la informacion llame por favor 805-649-2251.

Board meetings are open to the public and are held on the second and fourth Wednesdays of each month at 3:00 p.m. at the district main office, 1055 Ventura Avenue, Oak View, CA, 93022. For additional details on the subjects outlined here and for more information about Casitas Municipal Water District, visit us at our Web site: www.casitaswater.org, or call Susan McMahan, Water Quality Supervisor, at 805-649-2251 extension 120.

Ensuring Tap Water Is Safe to Drink

In order to ensure that tap water is safe to drink, the U.S. Environmental Protection Agency (USEPA) and the State Water Resources Control Board (SWRCB) Division of Drinking Water prescribe regulations that limit the amount of certain contaminants in water provided by public water systems. The U.S. Food and Drug Administration Regulations and California law also establish limits for contaminants in bottled water that provide the same protection for public health.

Drinking water, including bottled water, may be reasonably expected to contain at least small amounts of some contaminants. The presence of contaminants does not necessarily indicate that water poses a health risk. More information about contaminants and potential health effects can be obtained by calling the USEPA's Safe Drinking Water Hotline (1-800-426-4791).

Do You Know the Source of Your Water?

There are eight potential sources of water for Ojai Water System (OWS). Groundwater is pumped from the Ojai Valley Groundwater Basin through six wells located in the town of Ojai. The groundwater basin is recharged from a collection of local drainage basins, streams and creeks, as well as natural percolation from rain, agriculture, and domestic use. The water system has the ability to supplement supplies with treated water purchased from CMWD.



Operations and Maintenance staff work diligently to ensure high water quality at the Marion R. Walker Treatment Plant near Lake Casitas, CA.

CMWD water is a blend of ground water and surface water. The surface water comes from Lake Casitas, located near the junction of Highway 150 and Santa Ana Road. The ground water is drawn from the Mira Monte Well, located in Mira Monte. Most of the watershed is federally protected to limit contamination of the lake. For additional protection, we inspect the watershed on a regular basis.

For more information, you may review the 2013 Source Water Assessment for each groundwater well serving the OWS. For the CMWD sources, the Watershed Sanitary Survey 2016 update, and the 2002 Mira Monte Well Drinking Water Source Assessment are also available available our main office in Oak View, CA, at 1055 Ventura Avenue.

The OWS groundwater well sources are considered most vulnerable to one or more of the following possible contaminating activities. Contaminants associated with the following activities have not been detected in the water supply: permitted discharges; (National Pollutant Discharge Elimination System/waste discharge requirements) low density septic systems; agricultural and irrigation wells.

The CMWD Lake Casitas source is considered to be most vulnerable to the following activities not associated with any detected contaminants: boat services (repair and refinishing), petroleum pipelines, and recreation. There have been no contaminants detected in the water supply. However, the lake is still vulnerable to activities located near this major source of our drinking water. The potential sources of contaminants include private sewage disposal systems; livestock and wildlife grazing; limited pesticide and herbicide use; activities in the surrounding recreation area; unauthorized dumping; limited growth of new homes or urban areas; traffic accidents; and spills.

The CMWD Mira Monte well is considered to be most vulnerable to the use of fertilizers and animal grazing, which raise nitrate levels in the water. In addition, the Mira Monte Well may be vulnerable to activities associated with an urban environment. However, these activities have not resulted in contamination of the well.

Influences on Your Water Quality

The sources of drinking water (both tap water and bottled water) include rivers, lakes, streams, ponds, reservoirs, springs, and wells. As water travels over the surface of the land or through the ground, it dissolves naturally-occurring minerals and, in some cases, radioactive material, and can pick up

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substances resulting from the presence of animals or human activity.

Contaminants that may be present in source water include:

1). Microbial contaminants, such as viruses and bacteria, that may come from sewage treatment plants, septic systems, agricultural livestock operations, and wildlife.

2). Inorganic contaminants, such as salts and metals, that can be naturally-occurring or result from urban stormwater runoff; industrial or domestic wastewater discharges, oil and gas production, mining, or farming.

3). Pesticides and herbicides that may come from a variety of sources such as agriculture, urban storm water runoff, and residential uses.

4). Organic chemical contaminants, including synthetic and volatile organic chemicals, that are by-products of industrial processes and petroleum production, that can also come from gas stations, urban storm water runoff, agricultural application and septic systems.

5). Radioactive contaminants that can be naturally-occurring or be the result of oil and gas production and mining activities.

Lake Casitas has no urban or industrial water runoff and very few residents still live in the immediate watershed. There is no oil, gas or mining production above the lake in our watershed.

Chlorine/Chloramine Disinfection

All public drinking water must be disinfected to prevent water-borne diseases. The Ojai Water System (OWS) is disinfected through the use of chlorine, while the CMWD water is disinfected by adding chlorine and a small amount of ammonia to form chloramines. The OWS is normally chlorinated, but there may be some occasions when the water fed to the OWS is from the CMWD source and it is chloraminated. Chloramine disinfection is approved by the SWRCB Division of Drinking Water and the US Environmental Protection Agency. Many United States and Canadian cities have used chloramines for decades to disinfect water. Chloramines reduce the level of unwanted disinfection by-products in our water. Disinfection by-products are formed when chlorine mixes with naturally occurring organic material in water. Currently, regulated disinfection by-products include trihalomethanes and haloacetic acids. Chloramines stop the formation of these by-products, and chloraminated water has less of a chlorine taste and odor than chlorinated water. Chloramines do not pose a health hazard to the general population. Chloraminated water is safe for drinking, bathing, cooking and other normal uses. Two specific groups of people, however, do need to take special care with chloraminated water - kidney dialysis patients and tropical fish hobbyists.

Kidney patients are not harmed from drinking, cooking or bathing in chloraminated water. However, there is a problem that needs to be addressed for individuals who are undergoing dialysis treatment on artificial kidney machines. Chloramines must not be present in the water used in dialysis machines. Chloramines can be removed through a filtration system.

Chloramines are toxic to fish and other animals that use gills to breath. While chlorine will evaporate rather quickly from standing water, it may take weeks for chloramines to disappear. Thus it is necessary to dechlorinate water used for aquariums and fishponds. We suggest using a filter system or a dechlorinating agent sold at most pet stores for fresh and saltwater aquariums and fishponds. Another option is to install

a high-quality granular activated carbon (GAC) filter in your home. The chloramine residual in water used for fish should be kept below 0.1 parts per million. Contact your local pet store or fish shop for additional assistance.

Chloramines will not affect the chlorine balance in your backyard swimming pool. You still need to add chlorine to retard algae and bacterial growth. Chloramines have no affect on plants, vegetables or fruit trees. For more information on chloramines call 805-649-2251, ext. 120.

Fluoride

Fluoride is not added to the water, but there is some naturally-occurring fluoride in the water. This level was tested at an average of 0.4 mg/L for all sources during 2017. For more information on fluoride, check the SWRCB Division of Drinking Water's Fluoridation website for information on fluoridation, oral health, and current issues: http://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/Fluoridation.shtml

Lead and Copper

The latest results from OWS lead and copper testing were below the action levels. CMWD adds a small amount of phosphate to the water from the Lake Casitas source to lower the corrosivity and reduce copper levels, as part of our Corrosion Control plan. If present, elevated levels of lead can cause serious health problems, especially for pregnant women and young children. Lead in drinking water is primarily from materials and components associated with service lines and home plumbing. CMWD/OWS is responsible for providing high quality drinking water, but cannot control the variety of materials used in private plumbing components. When your water has been sitting for several hours, you can minimize the potential for lead exposure by flushing your tap for 30 seconds to 2 minutes before using water for drinking or cooking. If you are concerned about lead in your water, you may wish to have your water tested. Information on lead in drinking water, testing methods, and steps you can take to minimize exposure is available from the Safe Drinking Water Hotline or at <http://www.epa.gov/safewater/lead>. Elevated levels of copper can occur when corrosive water causes leaching of copper plumbing.

Additionally, as part of the school lead testing program, CMWD sampled four schools in the OWS service area and provided them with testing results.

Important Health Information

Some people may be more vulnerable to contaminants in drinking water than the general population. Immuno-compromised persons, such as persons with cancer undergoing chemotherapy, persons who have undergone organ transplants, people with HIV/AIDS or other immune system disorders, some elderly, and infants can be particularly at risk from infections. These people should seek advice about drinking water from their health care providers. USEPA/Centers for Disease Control (CDC) guidelines on appropriate means to lessen the risk of infection by *Cryptosporidium* and other microbial contaminants are available from the Safe Drinking Water Hotline at 1-800-426-4791.

Unregulated Contaminant Monitoring

Unregulated contaminant monitoring helps USEPA and the SWRCB Division of Drinking Water to determine where certain contaminants occur and whether the contaminants need to be regulated. Casitas sampled for unregulated contaminants during 2013; see the table for sampling results.

CMWD's Ojai Water System Quality Table,

Primary Health Standards

CONSTITUENTS	MCL (MRDL)	PHG, (MCLG) (MRDLG)	LAKE CASITAS TREATED WATER		MIRA MONTE WELL		DISTRI
			LEVEL/AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE
Turbidity							
Treatment technique (TT)							
Filter Effluent Turbidity (NTU) ^a	1 NTU	NA	highest value = 0.10	NA	NA	NA	NA
	95% < 0.2 NTU		100% of turbidity measurements < 0.2 NTU				
			100% = lowest monthly % of samples meeting turbidity limits				
MICROBIOLOGICAL							
OWS Distribution System Sampling							
			AVERAGE		RANGE		
Total Coliform Bacteria ^b	> 1 positive sample/month	(0)	0		0		
E. Coli Bacteria	> 1 positive sample/month	(0)	0		0		
INORGANIC CHEMICALS							
OWS Source Water Sampling							
			AVERAGE		RANGE		
Barium (ppm)	1	2	0-0.1		0		
Fluoride (ppm)	2.0	1	0.3-0.6		0.4		
Nitrate as N (ppm) (OWS)	10	10	2.7-6.5		4.7		
			LAKE CASITAS TREATED WATER	MIRA MONTE WELL	DISTRI		
			LEVEL/AVERAGE	RANGE	AVERAGE	RANGE	AVERAGE
Nitrate as N (ppm) ^c (CMWD) Water	10	10	ND	NA	10.8	7.6-12.6	0.9
DISINFECTION BY-PRODUCTS AND DISINFECTANT RESIDUALS							
Chlorine (ppm)	[4.0]	[4.0]					1.0
Trihalomethanes (ppb)	80	NA					49
Haloacetic acids (ppb)	60	NA					13
INDIVIDUAL TAP MONITORING FOR: LEAD AND COPPER							
	Regulatory Action Level	PHG#	of samples collected	Homes above RAL	Level detected at 90th percentile		
Lead (ppb) ^e	15	0.2	20	0	ND		
Lead School					Number of schools requesting lead s		
Copper (ppm) ^e	1.3	0.3	20	1	0.9		

Secondary Aesthetic Standards

CONSTITUENTS	State MCL	PHG/NL	RANGE				AVERAGE
Turbidity(NTU)	5	NA	0-0.5				0.3
Total Dissolved Solids (ppm)	1000	NA	380-760				600
Specific Conductance (uS/cm)	1600	NA	633-1170				917
Chloride (ppm)	500	NA	24-119				57
Manganese (ppm) ^f	50	NA	0-50				15
Sulfate (ppm)	500	NA	38-202				167
Zinc (ppm)	5	NA	0-0.15				0.02
Additional Monitoring							
UCMR 3 Monitoring							
			RANGE				AVERAGE
Chlorate (ppb)	800	NA	ND	ND	176	65-290	ND
Molybdenum (ppb)	NA	NA	3.3	3.1-3.4	1.0	ND-1.9	3.4
Strontium (ppb)	NA	NA	703	660-750	520	470-570	723
Vanadium (ppb) ^g	50	NA	See footnote g		See footnote g		See f
ADDITIONAL CONSTITUENTS (UNREGULATED)							
		PHG/NL	RANGE				AVERAGE
Alkalinity (Total as CaCO3 ppm)	NA	NA	130-230				198
pH (units)	6.5-8.5 US EPA	NA	6.70-7.37				7.12
Bicarbonate Alkalinity HCO3 (ppm)	NA	NA	160-280				240
Boron (ppb)	NA	(1000)	0-200				89
Calcium (ppm)	NA	NA	47-110				94
Magnesium (ppm)	NA	NA	14-27				24
Potassium (ppm)	NA	NA	0-3				1
Total Hardness (ppm)	NA	NA	175-390				336
Sodium (ppm)	NA	NA	30-98				55

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DISTRIBUTION SYSTEM		Year Tested			Source of Contamination
WELL RANGE	LAKE OR DISTRIBUTION SYSTEM	WELL ^d	OWS		
	NA	2017	NA	NA	Soil runoff
		2017	NA	NA	
E		2017	NA	2017	Naturally present in the environment
		2017	NA	2017	Human and animal fecal waste
E					
		2017	2016	2015	Discharges of oil drilling wastes and from metal refineries; erosion of natural deposits
		2017	2016	2015	Erosion of natural deposits; water additive which promotes strong teeth; discharge from fertilizer and aluminum factories
		2017	2016	2017	
DISTRIBUTION SYSTEM		Year Tested			Source of Contamination
WELL RANGE	LAKE OR DISTRIBUTION SYSTEM	WELL ^d	OWS		
	0.5-1.2	2017	2016	NA	Runoff and leaching from fertilizer use; leaching from tanks and sewerage; erosion from natural products
	0.1-2.4	2017	NA	2017	Drinking water disinfectant added for treatment
	10-48	2017	NA	2017	By-product of drinking water disinfection
	2-14	2017	NA	2017	By-product of drinking water disinfection
		Year Tested			
		2017	NA	2017	Internal corrosion of household plumbing systems; discharges from industrial manufacturers; erosion of natural products
sampling = 4					
		2017	NA	2017	Internal corrosion of household water plumbing systems; erosion of natural deposits; leaching from wood preservatives

DISTRIBUTION SYSTEM		Year Tested			Source of Contamination
WELL RANGE	LAKE OR DISTRIBUTION SYSTEM	WELL ^d	OWS		
		2017	2016	2015	Soil run-off
		2017	2016	2015	Run-off/leaching from natural deposits
		2017	2016	2015	Substances that form ions in water; seawater influence
		2017	2016	2015	Run-off/leaching from natural deposits; seawater influence
		2017	2016	2015	Leaching from natural deposits
		2017	2016	2015	Run-off/leaching from natural deposits; industrial wastes
		2017	2016	2015	Run-off /leaching from natural deposits; industrial wastes
WELL RANGE					
	ND	2013	2013	NA	A disinfection by-product
	3.2-3.5	2013	2013	NA	A naturally-occurring element found in ores and present in plants, animals and bacteria
	670-770	2013	2013	NA	A naturally-occurring element
		2013	2013	NA	A naturally-occurring elemental metal
		2017	2016	2015	A measure of the capacity to neutralize acid
		2017	2016	2015	A measure of acidity or alkalinity
		2017	2016	2015	
		2017	2016	2015	A naturally-occurring element
		2017	2016	2015	A naturally-occurring element
		2017	2016	2015	A naturally-occurring element
		2017	2016	2015	A naturally-occurring element
		2017	2016	2015	"Hardness" is the sum of polyvalent cations present in the water, generally magnesium and calcium. The cations are usually naturally occurring.
		2017	2016	2015	"Sodium" refers to the salt present in the water and is generally naturally occurring.

TERMS USED IN THIS REPORT:

Maximum Contaminant Level (MCL): The highest level of a contaminant that is allowed in drinking water. Primary MCLs are set as close to the PHGs (or MCLGs) as is economically and technologically feasible. Secondary MCLs are set to protect the odor, taste, and appearance of drinking water.

Maximum Contaminant Level Goal (MCLG): The level of a contaminant in drinking water below which there is no known or expected risk to health. MCLGs are set by the U.S. Environmental Protection Agency (USEPA).

Maximum Residual Disinfectant Level (MRDL): The highest level of a disinfectant allowed in drinking water. There is convincing evidence that addition of a disinfectant is necessary for control of microbial contaminants.

Maximum Residual Disinfectant Level Goal (MRDLG): The level of a drinking water disinfectant below which there is no known or expected risk to health. MRDLGs do not reflect the benefits of the use of disinfectants to control microbial contaminants.

Notification Level: Health based advisory levels established by The State Board* for chemicals in drinking water that lack MCLs.

Primary Drinking Water Standards (PDWS): MCLs and MRDLs for contaminants that affect health along with their monitoring and reporting requirements, and water treatment requirements.

Public Health Goal (PHG): The level of a contaminant in drinking water below which there is no known or expected risk to health. PHGs are set by the California Environmental Protection Agency.

Regulatory Action Level (RAL): The concentration of a contaminant which, if exceeded, triggers treatment or other requirements which a water system must follow.

Secondary Drinking Water Standards (SDWS): MCLs for contaminants that affect taste, odor, or appearance of the drinking water. Contaminants with SDWSs do not affect the health at the MCL levels.

Treatment Technique: A required process intended to reduce the level of a contaminant in drinking water.

UCMR 3: Unregulated Monitoring Contaminant Rule (Third round). This monitoring helps the EPA and The State Board* determine where certain contaminants occur and whether the contaminants need to be regulated.

Key To Table (ACRONYMS)

NA = Not Applicable
 ND = None Detected
 NL = Notification Level
 NS = No Sample
 NTU = Nephelometric Turbidity Units (a measure of turbidity)
 ppt = Parts per trillion, or nanograms per liter (ng/L)
 pCi/L = PicoCuries per liter (a measure of radiation)
 ppm = Parts per million, or milligrams per liter (mg/L)
 ppb = Parts per billion, or micrograms per liter (ug/L)
 TT = Treatment Technique
 uS/cm = Micro Siemens per Centimeter (a measure of specific conductance)

Water Quality Table Footnotes:

- Turbidity is a measure of the cloudiness of water and is a good measure of water quality and filtration performance; 100% of the samples tested for turbidity were below the required TT level of 0.2 NTU and 100% is the lowest monthly percentage of samples meeting the turbidity limits.
- Since June of 2017 Casitas collected 87 samples for total coliform bacteria testing according to the Total Coliform Rule. Total Coliform bacteria were not detected in any of these samples.
- Mira Monte Well is above the MCL for nitrate, however the well water is blended with Lake Casitas water with the resulting nitrate level averaging 0.9 ppm as nitrogen.
- The State allows us to monitor for some contaminants less than once per year because the concentrations of these contaminants do not change frequently. Some of our data, though representative, are more than one year old.
- Casitas has implemented a corrosion control plan by adding a small amount of phosphate to the water to lower corrosivity and reduce copper levels.
- Manganese results for treated water were non-detect for 2017.
- These results are below the detection limits for reporting and can only be used as an estimate. For vanadium sampling the highest level (in ppb) for the lake was 1.2 (ND for 2014), the well was 0.78 and 1.2 for the distribution system. Vanadium results of the treated water for 2017 were ND.

* CA State Water Resources Control Board